



Mobile Property In The Digital Economy Value Assessment Features

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Abstract: The purpose of the article is to study the specific characteristics of machinery, equipment and vehicles and their application to valuation activities, to study the importance of the formation and effective development of the market for these property objects and the market for their valuation services. The author also substantiates the need to develop a generally accepted methodology for assessing the value of machinery and equipment as a criterion for determining the market value of machinery and equipment.

Keywords: property, movable property, property market, valuation activity, valuation object, machinery and equipment, vehicles, cost, comparative, income approaches, depreciation, depreciation accounting.

Introduction

As part of the ongoing digital transformation of the economy of Uzbekistan, great attention is being paid to the development of the real estate market. This market is an important component of the economy and is directly related to the lives of all segments of the population. Real estate is also the basis for the development of enterprises and organizations of various forms of ownership and for conducting economic activities.

The development of any state is inextricably linked to the level of development of the property market. As a component of the property market, in our country, great attention is paid to the creation and improvement of the legal framework for relations related to movable property, the formation of a developed movable property market and a market for valuation services for movable property. As a result, entrepreneurial activity in the field of concluding transactions on movable property and rights to them, and the provision of services related to valuation activities in determining the value of property is also widely developing. "A solid legal framework has been formed in the republic to regulate valuation activities, extensive work has been carried out to develop the market for valuation services, increase responsibility for the results and impartiality of the valuation work carried out" [1].

Valuation of movable property is the assessment of the value of movable property directly in the assets of individuals and legal entities. It is an activity related to the assessment of the market value of machinery and equipment, vehicles. In the practice of assessment, in many cases, movable property objects belonging to legal entities can be encountered. This requires a deep scientific and methodological study and analysis of the specific characteristics of machinery and equipment, vehicles as an object of assessment, which differ from other property objects.

Machinery and equipment are tangible objects of ownership that are not real estate. They are movable property that performs a specific function and belongs to a separate object or part of a system. A vehicle is a device that carries people, cargo, and the devices installed on it.

Machinery and equipment are one of the main conditions for the development of society, forming the basis of the process of producing products and delivering them to consumers.



Literature review

The scientific and methodological foundations and practical issues of the topic were developed by foreign economists. Damodaran, A., Koller T., Goedhart M., Wessels D., Copeland T. [2; 3; 4; 5]. Scientists from the CIS countries, who have studied the problematic aspects and relevance of the topic and brought it into their scientific research and studies, have AN Asaul, Veig, NV, AP Kovalev, AA Kushel, IV Korolev, PV Fadeev. We can list the following [6; 7; 8]. Also, the theoretical foundations, methodological and practical issues of assessing the value of movable property in Uzbekistan Berkinov BB, Kravcheno AN, It was studied and further developed by Shokha'zamiy Sh. Sh., Khomitov KZ, and others [9; 10; 11].

Research Methodology

During the research process movable property. The specific features of the practice of assessing the value of real estate, their role in the economy, the works of foreign and domestic scientists were studied and analyzed. The article effectively used methods such as theoretical observation, systematic approach, observation, generalization, analysis, synthesis, as well as movable property. Conclusions and proposals have been formulated regarding the problems of assessing the value of and their solutions.

Analysis and results

The machinery and equipment market has a broad structural structure, and each equipment group has its own structure in the property market. A certain part of machinery and equipment, depending on its specification or production direction, has its own limited open market. Compared to the real estate market, the machinery and equipment market is very dynamic, which is due to the renewal of machinery products and the release and installation of new and more advanced machines instead of obsolete machinery and equipment. Machinery and equipment owned by enterprises and organizations, used in production processes for a long time, constitute the fixed assets of the enterprise and embody material values.

The Unified National Valuation Standard of the Republic of Uzbekistan, in particular, National Valuation Standard No. 13 "Valuation of Machinery and Equipment" (MBS No. 13), which has been in effect in our country since December 28, 2023, defines the main requirements for the process of valuing machinery and equipment and the characteristics of this process.

The following are the valuation items to which IAS 13 applies:

- one separately purchased machine or equipment or a specific part of a machine or equipment;
- units of machinery and equipment that are conditionally independent of each other (part of a production and technological system or line);
- production and technological systems (a complex of machines and/or equipment interconnected by a production and technological process).

The requirements of this MBS should also be followed when assessing the right to use machinery and equipment (for example, based on a lease agreement) [12].

The purpose of the valuation of machinery and equipment is to calculate and justify the market value of the enterprise. The valuation is aimed at solving a specific problem and requires the appraiser to clearly understand the task set before him and the purpose of the valuation.

Property valuation is carried out with a specific purpose in mind (determining the selling price, obtaining a mortgage, insuring, etc.). In each case, it is valued differently depending on the purpose.



For example: The valuation of a property for fire insurance and the valuation for a mortgage loan are different. In the former, the value is based on the amount of money spent on restoring parts of the property, while in the latter, the value is based on the potential market price of the property if the loan is not repaid.

Machinery and equipment evaluation– this is the determination of the value of all movable property of the enterprise (equipment, vehicles, freight and office equipment, in fact, all objects that are part of movable property).

The market value of movable property is one of the main tasks in property valuation theory today. This valuation is used for various purposes, depending on the owner's needs.

Today, valuation of all types of property is necessary in all types of transactions and is carried out for the following purposes:

1. In lending through collateral.
2. In the process of buying and selling.
3. In order to resolve property disputes.
4. In the process of incorporation and taxation.
5. For insurance purposes.

Subject to the valuation procedures for other assets, the valuation of machinery and equipment has a number of specific features:

1. In the context of the extreme diversity of machines and equipment (sometimes combined with high structural complexity), it is not an easy task for the appraiser to establish the main quantitative and qualitative characteristics that affect the value of the valuation object. The problem is that these factors can differ significantly for different technological machines, and their degree of influence can affect the value. A machine designed for one thing can perform different tasks and be produced by different manufacturers in different countries. All this makes it difficult for the appraiser to form an idea of the valuation object, that is, the identification process. Subsequently, machines with similar parameters affect the market price in different interpretations.

2. Another problem of identification complexity is the different types of technological equipment with accessories, fixtures and spare parts. This requires the appraiser to have knowledge of the equipment being valued as an inventory item (and subsequently, the corresponding price information about all spare parts).

3. In the process of valuing existing and operating technological equipment, the appraiser, in addition to determining the market value, must also take into account a wide range of costs that may arise later (transportation costs, installation and commissioning costs, etc.).

4. The relatively undeveloped Uzbek market for technological equipment makes it difficult to find price information on transactions of purchase and sale of similar objects of various types. This makes it necessary to correct the prices of the objects being evaluated for a number of factors. An additional difficulty in assessing the market value is the lack of a generally accepted information database that would provide a methodical calculation of the value of this type of equipment.

5. Technological machinery and equipment that are similar in basic size and a number of technical indicators may be manufactured by different enterprises or imported from different countries. The manufacturer's brand may affect important indicators such as reliability and operating costs of machinery and equipment. As a result, there may be a difference in the cost of the machine.

6. The relatively large number of special and unique technological equipment encountered at the appraiser's enterprise eliminates the possibility of using a comparative approach to their assessment, and often makes it impossible.



7. The difficulty of determining the share of technological equipment in a separate unit in the income structure generated by the entire production system often eliminates the possibility of using an income-based approach to their assessment.

8. The relatively short useful life of technological equipment encourages a careful approach to assessing their physical obsolescence, errors in determining the physical obsolescence coefficient lead to significant errors in calculating the residual value of machines. An additional problem in this case is the accounting of the costs of current and capital repairs and modernization of machines and equipment.

9. High dynamic development is typical for technology. Machinery and equipment are no exception. The emergence of new materials, structures and technologies also makes it necessary to take into account the functional obsolescence and the associated decrease in the value of existing valuation objects. The problem with this is that the appraiser, not being an expert in technological equipment in general, may be unaware of the level of various “technical and technological innovations” being produced in the world.

10. In some cases, technological machines form a single complex designed to perform specific tasks. Each machine in this complex, intended for the same or different purposes, can perform its function not independently, but as part of it. The production characteristics of individual machines of such a complex (automatic line, flexible production system, mini-factory, etc.) must be clearly agreed. Otherwise, along with the decrease in value, functional obsolescence will occur.

11. One of the most common situations in the valuation of technological equipment (when inventory units are counted or amount to hundreds) is the mass valuation of the assets of a workshop or an entire enterprise. This problem requires certain valuation methodologies that allow it to be implemented in a short time.

12. Machinery and equipment are relatively more liquid than real estate, so they often act as collateral for lending. The main problem in determining their collateral value is determining the liquidity ratio, which depends not only on the type and condition of the equipment, but also on the demand for it in the market [8].

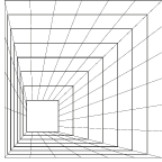
Due to the above specific characteristics of machinery and equipment, the formation of its market is difficult, characteristic of current socio-economic conditions.

Several factors affect the valuation of machinery and equipment in an enterprise's assets, the most important of which is the degree of depreciation. Since they are quickly updated, the degree of depreciation can also be calculated intensively. Here, as noted above, the appraiser relies on the necessary technical knowledge or expert assistance to correctly calculate the technical and moral depreciation of machinery and equipment.

Table 1

Expert assessment scale for determining the wear coefficient when inspecting the physical condition of machinery and equipment

Hardware status	Physical condition description	Depreciation, in %
New	New, installed and not yet in operation (or new, practically unused equipment) equipment in excellent condition.	0-5
Very good	New or previously used equipment, fully refurbished (reconditioned), in excellent condition. Or, almost new equipment, operated for a short period of time and requiring no repairs or replacement of any parts.	10-15
Good	Equipment that has been previously operated, fully	20-35



	repaired or reconstructed, and is in good condition. Defects and damaged areas are not of a significant nature.	
Satisfactory	Previously operated equipment in satisfactory condition is suitable for operation, but some repairs or replacement of non-core components (individual small parts) are required.	40-60
Conditionally valid	Equipment that was previously in operation and is in a condition suitable for further operation, but requires significant repair (overhaul) or replacement of major parts, main assemblies, elements (for example: engine).	65-80
Unsatisfactory	Equipment that was previously in operation and requires major repairs, such as replacing the working parts of its main units. Equipment that must be completely reconstructed in order to continue operation.	85-90
Unusable	Equipment that has no logical future for sale and can only be salvaged for the cost of its basic materials.	97.5-100

Each inventory object in accounting is maintained using a standard inventory card, which reflects a number of data. In particular, the useful life, depreciation calculation form, location, technical characteristics. Through such data, we obtain information about the life history of machines and equipment, summarizing information on their receipt and sale, depreciation calculation, and physical depreciation. The main factor here is their physical and moral depreciation. There are several methods for calculating depreciation: the straight-line method, the accelerated method (cumulative, sum of years). The moral obsolescence of property plays a major role in the application of these methods. Because currently, machines and equipment used in production are frequently replaced and adapted to the times. In order to replace them with modern ones, it is necessary to quickly calculate depreciation for the previous ones and remove them from the composition of fixed assets.

The accumulated depreciation of the object being valued at the valuation date is determined by its physical condition (physical depreciation), its compliance with modern market requirements (functional depreciation), and changes in value due to external factors (external/economic depreciation). The accumulated depreciation value cannot exceed 100%.

Accumulated depreciation can be expressed as a percentage, a certain percentage of the replacement value, or a monetary unit.

Accumulated depreciation is calculated using the following formula:

$$E_{jam} = 1 - (1 - E_{jis}) * (1 - E_{funk}) * (1 - E_{tash}),$$

where: E_{jam} – accumulated depreciation coefficient;

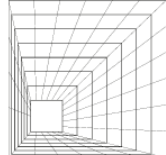
E_{jis} – physical wear coefficient;

E_{funk} – functional wear coefficient;

E_{tash} – external wear coefficient.

Physical obsolescence of an object is determined by the following methods:

- the method of weakening the main aspects;
- normal wear and tear method;
- straight-line method of change in money;
- expert-analytical method;
- recovery method;



- weighted average depreciation method;

1. The method of deterioration of the main aspects is used when one of the specific main aspects of the object being assessed (production capacity, accuracy, durability, fuel consumption) does not meet the requirements and is determined as follows:

$$E_{jis} = 1 - \left(\frac{X}{X_0}\right) * n,$$

where, X, X_0 – is the condition indicator of one of the main aspects of the facility at the time of its first commissioning and on the assessment date;

n – the degree to which one of the main aspects of an object affects its value.

2. The normal depreciation method of determining physical obsolescence is determined by the relationship between the actual service life of the object being evaluated and the normative period. In this case, physical obsolescence is determined as follows:

$$E_{jism} = \frac{L_{ef}}{L_n} * 100\% \quad \text{or} \quad E_{jism} = \frac{T_{ef}}{T_n} * 100\%,$$

where, L_{ef} – the effective pressure path of the assessed object from its commissioning to the assessment date, thousand km;

L_n – the standard mileage of the assessed object on the date of write-off, thousand km;

T_{ef} – effective age of the assessed object at the valuation date, in years;

T_n – standard service life at the time of write-off, years.

3. The straight-line method of depreciation involves calculating the amount of costs incurred to replace a separate element of the object being valued, and this calculated amount serves as the element for calculating depreciation.

$$E_{jis} = \frac{C_r}{S_a} * 100\%,$$

where, S_r – total repair costs to prevent wear and tear;

S_a – new analog price.

4. The peculiarity of calculating physical depreciation using the expert-analytical method is that it is determined based on the cost of a new analogue and a previously used analogue. In this method, physical depreciation is determined by the following formula:

$$E_{jis} = \frac{N_y - N_e}{N_y},$$

where, N_y – the price of the new analogue;

N_e – the price of the old analogue;

5. In the restoration method, it is calculated by adding together the total costs incurred until the object being evaluated is brought to a new condition and the capital repair costs for replacing the main units with new ones. The formula for determining it is as follows:

$$E_{jis} = \sum C_{kt} + \sum C_y,$$

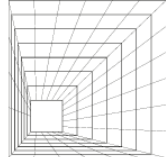
where, C_{kt} – capital repair costs;

C_y – costs of launching a new facility (transportation costs, mandatory payments)

6. The weighted average depreciation method is based on the calculation of physical depreciation, in which depreciation is determined according to the actual condition of individual structural elements of the valuation object, taking into account their share in the full value of the valuation object.

The calculation of physical depreciation for the valuation object and its components is determined by the following formula:

$$I_{\phi u z} = \sum_{i=1}^n a_i I_{\phi u z_i},$$



in this, $I_{\phi u z_i}$ – physical wear of the n th structural element (node) of the object being assessed, in %;

a_i – the share of the cost of the n th node in the total cost of the object being evaluated;
 n – the number of structural elements (nodes) of the object being evaluated.

Functional obsolescence is when the characteristics of an object no longer meet current market requirements.

Functional obsolescence is divided into types such as preventable and non-preventable obsolescence.

Functional obsolescence can be calculated for the entire object or for parts.

Functional obsolescence can be calculated in two different ways, namely, the comparative method and the division method.

When calculated using the comparative method, it is determined based on the costs of eliminating functional deficiencies in the facility when compared with another similar modern facility.

In the division method, it is determined by the sum of recoverable and non-recoverable depreciation. The calculation of recoverable and non-recoverable depreciation is carried out by identifying the causes of their occurrence.

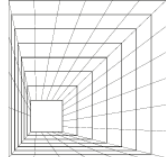
External obsolescence is caused by external factors that negatively affect the value of the property being appraised. External factors include: market conditions, financing conditions, usage limits, changes in infrastructure and legislation, etc. External obsolescence can be determined through comparative or expert valuation methods.

Conclusion/Recommendations

In conclusion, it can be noted that by assessing the value of movable property in the form of machinery and equipment owned by enterprises, it is possible to determine the market value of the fixed assets. Knowing the value of their property, the owner can determine the level of demand for this type of property in the open market, the current state of this market segment, the level of profitability and loss, and based on this, make management decisions, attract internal and external investors, reorganize the business, determine the level of efficiency of technological processes at the enterprise, and carry out other entrepreneurial actions.

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